

REMARKS

This application has been carefully reviewed in light of the Office Action dated September 25, 2006. Claims 6 to 11 and 27 to 41 are pending in the application, of which Claims 6, 27, 32 and 37 are independent. Reconsideration and further examination are respectfully requested.

Claims 6 to 9, 11, 27 to 30, 32 to 35 and 37 to 40 were rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 6,104,498 (Shima). Claims 10, 31, 36 and 41 were rejected under 35 U.S.C. § 103(a) over Shima in view of U.S. Patent No. 5,237,923 (Williams). Reconsideration and withdrawal of this rejection are respectfully requested.

Independent Claims 6, 27, 32 and 37

Turning to specific claim language, amended independent Claim 6 is directed to a print control apparatus as a host computer which is connected to an external printing apparatus through an interface and executes a printer driver which generates print data described in the page description language to be interpreted by the external printing apparatus. The apparatus includes a spooler that saves intermediate data to be converted into the print data and converted from graphic information generated by a graphic engine based on a print request from an application, together with a designated number of copies of a document to be printed based on the saved data; a spool file manager that checks if a print instruction is a test print instruction, that changes the number of copies to 1 when the test print is instructed, and that outputs the intermediate data saved in the spooler together with the number of copies which has been changed to 1 for the test print in response to the print instruction for printing at the print apparatus; a generation unit that generates the print

data with the printer driver based on the intermediate data and the number of copies which has been changed to 1 for the test print outputted by the spool-file manager; and a transmission unit that transmits the print data generated by said generating unit to the printing apparatus. When a test print is instructed, the generation unit generates the print data which is described in the page description language with the number of copies which has been changed to 1 for a test print. When normal print of the document is instructed after the print data for the test print generated by the generating unit has been transmitted to the printing apparatus, the generating unit reads the intermediate data saved by the spooler and generates the print data which is described in the page description language with the printer driver.

Accordingly, a print control apparatus in accordance with Claim 6 features a spooler that saves intermediate data to be converted into print data and converted from graphic information generated by a graphic engine based on a print request from an application, together with a designated number of copies of a document to be printed based on the saved data. Furthermore, such a print control apparatus features a generating unit that generates the print data with the printer driver based on the intermediate data and the number of copies which has been changed into 1 for the test print outputted by said spool file manager.

Thus, a host computer working as a print control apparatus defined in Claim 6 saves the intermediate data that is not yet converted into print data and generates with the printer driver print data for test print and normal print to be performed after the test print, from the intermediate data.

In contrast, controller 7 in Shima analyses print data output from a host computer to generate intermediate information then generates bitmap data. Controller 7 in Shima generates bitmap data for test printing (S92) from the intermediate information generated from the print job described in a PDL, and then generates bitmap data for normal printing after the test printing from the intermediate information (S100). (See Shima, Fig. 1 and Fig. 14). However, Shima fails to disclose or suggest generating print data from the intermediate data to be converted into print data and outputted to the printing device from a host computer as featured in Claim 6. Instead, Shima discloses generating bitmap data from the intermediated information produced from a print job outputted from a host computer. Therefore, Shima fails to disclose at least the features of the spooler and the generating unit as in Claim 6.

The Office Action contends in the Response to Arguments on Page 2 that “a similar system can be created with a control in a print server.” Applicant respectfully disagrees with such a characterization of the Shima. Even assuming that controller 7 in Shima is not in a printing device but combined with a print server intervening between a host and a printing device as suggested in the Response to Aruments, such a print server is different from the print control apparatus defined in Claim 6 of the present application. Admittedly, controller 7 in the print server would have the same functions as controller 7 embedded in the printing device shown in Shima. Accordingly, a print server combined with controller 7 receives a print job and the performs test print using the received print job. However, the print server would not work as the print control apparatus according to Claim 6 because the print server cannot save intermediate data to be converted into print data. Therefore, such a print server could not generate test print and normal print to be

performed after the test print using the printer driver operating on the intermediate data print data. Thus, controller 7 combined with a print server cannot work as the print control apparatus defined in Claim 6.

In light of the deficiencies of Shima as discussed above, Applicant submits that amended independent Claim 6 is now in condition for allowance and respectfully requests same.

Independent Claims 27, 32 and 37 are directed to an apparatus, method and computer program embodied in a computer readable storage medium, respectively, corresponding to Claim 6 as amended. Accordingly, Applicant submits that Claims 27, 32 and 37 are now also in condition for allowance and respectfully requests same.

Dependent Claims 9, 30, 35 and 40

The other pending claims in this application are each dependent from the independent claims discussed above and are therefore believed allowable for the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

In this respect, the spool file manager defined in Claim 9 changes a setup related to a content to be printed associated with the intermediate data saved in said spooler after the spool file manager outputs the intermediate data. The generating unit reads the intermediate data saved in the spooler and generates print data based on the setup related to the content to be printed and the intermediate data with the printer driver when the setup related to the content to be printed has been changed.

Dependent Claims 30, 35 and 40 are directed to an apparatus, method and computer program embodied in a computer readable storage medium, respectively, corresponding to Claim 9 as amended

In contrast to the apparatus of Claim 9, controller 7 in Shima changes the number of copies of the intermediate information generated from a print job outputted to the printing device from M to (M-1) if a result of test printing is good. Shima fails to disclose or suggest a generating unit that reads the intermediate data saved in the spooler and generates print data based on the setup related to the content to be printed and the intermediate data with the printer driver when the setup related to the content to be printed has been changed.

Furthermore, Williams discloses printing the number of required copies of print products after test printing using plate generated from image data if a result of the test printing is good. However, Williams fails to disclose the spooler and the generating unit of the claimed invention.

Therefore, both Shima and Williams fail to disclose or suggest a generating unit that reads the intermediate data saved in the spooler and generates print data based on the setup related to the content to be printed and the intermediate data with the printer driver when the setup related to the content to be printed has been changed. Therefore, Shima and Williams, either alone or in combination, fail to disclose or suggest all of the features of Claim 9.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

REQUEST FOR INTERVIEW

Applicants request that the Examiner conduct a personal or telephonic interview with Applicants' representative regarding this case. If such an interview has not been conducted before the Examiner takes this Amendment into consideration, Applicants respectfully request that the Examiner contact Applicants' representative as indicated below.

REQUEST FOR INITIALED FORM PTO-1449

Finally, attached is a copy of a Form PTO-1449 that was submitted with an Information Disclosure Statement filed in this case on September 29, 1006. The Examiner is respectfully requested to initial and return a copy of the PTO-1449, thereby indicating that the information cited therein was considered and made formally of record.

CONCLUSION

Applicant's undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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